

130-12-2/24

Utilisation of Reserve for Increased Labour Productivity

ASSOCIATION: Dnepropetrovsk imeni Lenin Tube Rolling Mill (Dnepro-
petrovskiy truboprokatnyy zavod im. Lenina)

AVAILABLE: Library of Congress
Card 2/2

URIN, L.I.

BUSHUYEV, A.K.; TABUNOV, K.A.; LEVIT, Yu.L.; BRESKIN, P.P.; URIN, L.I.;
RAZUMOVSKAYA, R.I.; CHERNOUS, V.A.

Organizing production quality control. Metallurg 3 no.3:32-34 Mr
'58. (MIRA 11:3)

1. Otdel tekhnicheskogo kontrolya Nizhne-Tagil'skogo metallurgicheskogo
kombinata (for Bushuyev, Tabunov, Levit). 2. Nachal'nik otdela
tekhnicheskogo kontrolya Dnepropetrovskogo zavoda im. Lenina
(for Breskin). 3. Starshiy inzhener OOT Dnepropetrovskogo zavoda im.
Lenina (for Urin). 4. Nachal'niki uchastkov otdela tekhnicheskogo
kontrolya zavoda "Zaporozhtal' " (for Razumovskaya, Chernous).
(Metalwork---Quality control)

BURKOV, G.G.; URIN, L.L.

Equipment for continuous patenting and zinc coating of wire.
Biul. TSIICHM no.3:42-45 '61. (MIRA 14:12)

1. Beloretskiy staleprovolochno-kanatnyy zavod.
(Wire ~~Heat treatment~~)
(Protective coatings)

URIN, A. S.
128
PHASE I BOOK EXPLOITATION

SOV/6246

Soveshchaniye po tseolitam. 1st, Leningrad, 1961.

Sinteticheskiye tseolity; polucheniye, issledovaniye i primeneniye
(Synthetic Zeolites: Production, Investigation, and Use). Mos-
cow, Izd-vo AN SSSR, 1962. 286 p. (Series: Its: Doklady)
Errata slip inserted. 2500 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Otdeleniye khimicheskikh
nauk. Komisiya po tseolitam.

Resp. Eds.: M. M. Dubinin, Academician and V. V. Serpinskiy, Doctor
of Chemical Sciences; Ed.: Ye. G. Zhukovskaya; Tech. Ed.: S. P.
Golub'.

PURPOSE: This book is intended for scientists and engineers engaged
in the production of synthetic zeolites (molecular sieves), and
for chemists in general.

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Synthetic Zeolites: (Cont.)

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COVERAGE: The book is a collection of reports presented at the First Conference on Zeolites, held in Leningrad 16 through 19 March 1961 at the Leningrad Technological Institute imeni Lensovet, and is purportedly the first monograph on this subject. The reports are grouped into 3 subject areas: 1) theoretical problems of adsorption on various types of zeolites and methods for their investigation, 2) the production of zeolites, and 3) application of zeolites. No personalities are mentioned. References follow individual articles.

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Synthetic Zeolites: (Cont.)

Misin, M. S., L. M. Maksimova, V. A. Litvinova, and L. B. Khandros. Production and Adsorption Properties of NaA, NaP, CaA and CaP Zeolites

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Misin, M. S., L. M. Maksimova, V. A. Litvinova, L. B. Khandros, G. A. Polyakova, and L. S. Urin. Production and Adsorption Properties of NaX, CaX, and AgX Zeolites

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Figuzova, L. I., A. V. Agafonov, A. S. Vitukhina, V. F. Dmitriyeva, A. T. Slepneva, V. A. Burylov, and M. A. Chespurov. Synthesis Conditions and Thermal Stability of Type X Zeolites

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Mirskiy, Ya. V., M. G. Mitrofanov, and T. N. Bredikhina. Ion Exchange of Na for Ca in Type A Synthetic Zeolite

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Mirskiy, Ya. V., M. G. Mitrofanov, B. M. Popkov, L. T. Bolotov, and A. I. Mezhlumova. Production of Synthetic Zeolites Under Industrial Conditions

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USSR/Atomic and Molecular Physics - Physics of the Atom, D-1

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 34284

Author: Mokhov, V. N., Urin, M. G.

Institution: Moscow Engineering-Physics Institute

Title: Auger Effect in Heavy Atoms

Original Periodical: Zh. eksperm. i teor. fiziki, 30, 1, 209-210, 1956

Abstract: A calculation was made of the total number of radiationless transitions of the electron to the vacant place in the K layer, accompanied by the emission of the second electron. The wave functions were used with allowances for the shielding of the nucleus. For large values of n , the wave functions were taken in the quasi-classical approximation. The calculations were carried out for an atom with $Z = 47$. For the quantity α_K , which is equal to the ratio of the number of radiationless transitions to the number of transitions with radiation multiplied by Z^4 , a value of 1.14×10^6 was obtained, agreeing with the experimental data (1.12×10^6). If purely Coulomb wave functions are used, the value obtained is 1.65×10^6 .

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PA - 1927

SUBJECT USSR / PHYSICS
 AUTHOR URIN, M.G., MOCHOV, V.N.
 TITLE The Polarization of Relativistic Protons in the Case of COULOMB Scattering.
 PERIODICAL Zhurn. eksp. i teor. fis., 31, fasc. 5, 842-844 (1956)
 Issued: 1 / 1957

Here the amount of this polarization is determined by means of the perturbation theory. Only for weak and only little modifying electromagnetic fields the equation, which describes a particle with spin $1/2$ and with the magnetic moment (which exists at $v \ll c$) $M_p = \alpha e \hbar / 2mc$ (m - mass of the proton, $\alpha = 2,79$) is the following: $\{ i \gamma_k (p_k - eA_k) + (1/2) i M' \gamma_k \gamma_{kl} F_{kl} + m \} \Psi = 0$. Here A_k denotes the four-potential, F_{kl} - the tensor of the electromagnetic field, $M' = M_p - e/2L$. Throughout the present work it holds that $\hbar = c = 1$. For steady states it applies that $\mathcal{H} \Psi = \mathcal{E} \Psi$. For a COULOMB field ($\vec{A} = 0$; $A_4 = i\varphi = iZe/r$) it holds that $\mathcal{H} = i\beta \gamma \vec{p} + \beta m + e\varphi + M' \gamma \nabla \varphi$. As it is possible, from the vectors entering into the problem, to compose a suitable pseudovector, polarization in the direction of the scattering plane is equal to zero. Therefore the spin is analyzed in the vertical direction, on which occasion scattering is looked upon as elastic. Next, an expression for the differential scattering cross section is written down for that case in which the exterior field can be looked upon as a perturbation. This cross section is specialized for an unpolarized

Žurn. eksp. i teor. fis., 31, fasc. 5, 842-844 (1956) CARD 2 / 2 PA - 1927

primary proton bundle and the summations occurring therein are carried out. The total differential cross section resulting therefrom is explicitly written down, and likewise the polarization found in this approximation. Next, the scattering cross section is investigated in second perturbational approximation. Also here the carrying out of summations and integrations is discussed in short. The integral cross section thus obtained is explicitly given. At $\beta = v/c = 0,6$ and at $\beta = 0,77$ polarization becomes equal to zero. Also for relative polarization an expression is written down. The condition of the applicability of the perturbation theory to the present case is $Ze^2/\hbar v \ll 1$. For relativistic protons this is equivalent to the condition $Z/137$. The formulae found here are applicable in the following angle interval: $\hbar/pR_{at} < \theta < Ze^2/\varepsilon_{nu}$. Here p denotes the momentum of the proton and R_{at} and R_{nu} apparently denote (although not expressly mentioned) the radius of the atom and of the nucleus respectively. For angles which are larger than $Ze^2/\varepsilon R_{nu}$ nuclear scattering is of essential importance. Also small angles must be excluded as a result of screening off the COULOMB field by the atomic electrons. The results obtained are suited as a correction to polarization on the occasion of nuclear scattering.

INSTITUTION: Moscow Engineering-Physical Institute.

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SOV/64-59-4-7/27

5(3)

AUTHORS: Urin, M. G., Dzhegatspanyan, R. V.

TITLE: Quantitative Analysis of the Commercial Product DDT by Means of Infrared Spectrometry (Kolichestvennyy analiz tekhnicheskogo produkta DDT s pomoshch'yu infrakrasnoy spektrometrii)

PERIODICAL: Khimicheskaya promyshlennost', 1959, Nr 4, pp 27 - 28 (USSR)

ABSTRACT: Among the 15 compounds which were found in the commercial DDT the n,n'-isomer DDT (I) has the strongest toxic effect. The spectroscopic method allows an especially precise, simple, and rapid quantitative determination of this isomer. The commercial DDT may be regarded as a mixture of the (I) and o,n'-isomer DDT (II) in this connection the n,n'-isomers DDD and DDKh are also determined in the former. A spectroscopic method was elaborated for the quantitative analysis of two-, three- and four-component-mixtures of the last mentioned substances. The experiments were carried through by means of the spectrometer IKS-11 with a Nernst needle as radiation source. Carbon disulphide was used as solvent. The following analytical wave lengths were used: for (I) 12.3 μ , for (II) 9.6 μ , for the n,n'-isomer DDD 12.4 μ and for the n,n'-isomer DDKh 10.2 μ . 16

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Quantitative Analysis of the Commercial Product DDT by SOV/64-59-4-7/27
Means of Infrared Spectrometry

absorption coefficients K_{ij} (Table 1) were determined and two-, three- and four-component standard mixtures of a similar composition as the commercial DDT-product were analysed (Table 2). The measuring accuracy for (I) and (II) is given with a mean error of 1 and 2.5%. There are 2 figures, 2 tables, and 15 references, 4 of which are Soviet.

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S/056/60/038/006/034/049/X.
B006/B070

24,4500

AUTHOR:

Urin, M. G.

TITLE:

The Effect of the Superfluidity of Heavy Nuclei on Single-
particle Electromagnetic Transitions and Beta Decay

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki. 1960,
Vol. 38, No. 6, pp. 1852-1853

TEXT: The object of the present work was to obtain a formula for calculating the single-particle electromagnetic transition probability and the beta-decay probability by taking into account the pair correlations of nucleons in heavy nuclei. Single-particle electromagnetic transitions in weakly excited nuclei are considered to be transitions of the most weakly bound nucleon. Here, these transitions are shown to be affected by a re-construction of the Fermi surface due to the formation of correlated nucleon pairs. The canonical transformation recommended by N. N. Bogolyubov is used to describe the superfluid state of heavy nuclei. This transformation takes into account the correlation of nucleons whose

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The Effect of the Superfluidity of Heavy
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states differ only in the signs of the projection of the total momentum on the symmetry axis of the nucleus:

$a_{\nu+} = u_{\nu}\alpha_{\nu} + v_{\nu}\beta_{\nu}^{\dagger}$; $a_{\nu-} = u_{\nu}\beta_{\nu} - v_{\nu}\alpha_{\nu}^{\dagger}$; $u_{\nu}^2 + v_{\nu}^2 = 1$. Here, $a_{\nu\sigma}$ is the annihilation operator of a nucleon in a state characterized by the totality of the quantum numbers ν, σ (σ gives the sign of the projection of a momentum whose modulus is Ω). The wave function $\psi_{\nu\sigma}$ is so chosen that in going from $\psi_{\nu+}$ to $\psi_{\nu-}$ a time reversal takes place. The ground state of an odd nucleus represents a vacuum Φ_0 for quasi-particles: $\alpha_{\nu}\Phi_0 = \beta_{\nu}\Phi_0 = 0$.

The ground and excited states of an odd nucleus may be regarded as the ground state of the corresponding even nucleus plus one quasi-particle:

$\alpha_{\nu}^{\dagger}\Phi_0; \beta_{\nu}^{\dagger}\Phi_0$ (1). The excited state of an even nucleus is characterized by the existence of at least two quasi-particles:

$\alpha_{\nu_1}^{\dagger}\beta_{\nu_2}^{\dagger}\Phi_0; \alpha_{\nu_1}^{\dagger}\alpha_{\nu_2}^{\dagger}\Phi_0; \beta_{\nu_1}^{\dagger}\beta_{\nu_2}^{\dagger}\Phi_0$ (2). The probability of single-particle

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The Effect of the Superfluidity of Heavy Nuclei on Single-particle Electromagnetic Transitions and Beta Decay

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electromagnetic transitions is determined by means of the matrix elements of the operators of the multipole moments of the system

$$\mathcal{M}_{\lambda\mu\alpha} = \sum_{\nu\sigma, \nu'\sigma'} \langle \nu, \sigma | \mathcal{M}_{\lambda\mu\alpha}^{(1)} | \nu', \sigma' \rangle a_{\nu\sigma}^+ a_{\nu'\sigma'}, \quad \text{where } \mathcal{M}_{\lambda\mu\alpha} \text{ is the}$$

single-particle operator of an electric ($\alpha=0$) or magnetic ($\alpha=1$) multipole moment of the order λ . The probability of a multipole transition for a deformed odd nucleus is found to be given by

$$w_{12}(\lambda) = | \langle \nu_2 + | \mathcal{M}_{\lambda\mu\alpha}^{(1)} | \nu_1 + \rangle |^2 (\mu_{\nu_1} \mu_{\nu_2} + (-)^{\alpha+1} \nu_{\nu_1} \nu_{\nu_2})^2 + | \langle \nu_2 + | \mathcal{M}_{\lambda\mu\alpha}^{(1)} | \nu_1 - \rangle |^2 (\mu_{\nu_1} \mu_{\nu_2} + (-)^{\alpha} \nu_{\nu_1} \nu_{\nu_2})^2 \quad (3).$$

For a deformed even nucleus, the probability of transition from a state of the form (2) in the ground state is given by

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$$w_{12}(\lambda) = |\langle \nu_2 + | m_{\lambda\mu\alpha}^{(1)} | \nu_1 + \rangle|^2 (\mu_{\nu_1} \nu_{\nu_2} + (-)^{\alpha} \nu_{\nu_1} \mu_{\nu_2})^2 \\ + |\langle \nu_2 + | m_{\lambda\mu\alpha}^{(1)} | \nu_1 - \rangle|^2 (\mu_{\nu_1} \nu_{\nu_2} + (-)^{\alpha+1} \nu_{\nu_1} \mu_{\nu_2})^2 \quad (4).$$

The probability of a transition between excited states of the form (2) can be given by a formula analogous to (3). The selection rules are briefly discussed. The probability, which is affected by the re-construction of the Fermi surface, of β^- decay of an odd deformed nucleus without excitation of levels of collective motion is found to be given by:

$W_{12} = w_{12} (u_{\nu_1}^n u_{\nu_2}^p)^2$. w_{12} is the probability without taking account of pairing; n and p denote the neutron and proton fluid, respectively; ν_1 and ν_2 characterize the initial and final state, respectively, of the form (1). The probability of β^- decay of an even-even (odd-odd) deformed

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nucleus from the ground state (to the ground state) is given by

$$W_{12} = w_{12}^{e-e} (v_1^n u_2^p)^2, \text{ and } W_{12} = w_{12}^{o-o} (u_1^n v_2^p)^2. \text{ } \beta^+ \text{ transition: } n \rightarrow p.$$

A. B. Migdal is thanked for his interest in the work. There are 5 Soviet
references.

ASSOCIATION: Moskovskiy inzhenerno-fizicheskiy institut (Moscow Institute
of Engineering Physics)

SUBMITTED: February 5, 1960

X

Card 5/5

ZARETSKIY, D.F.; URIN, M.G.

Nature of collective levels in nonspherical nuclei. Zhur. eksp.
i teor. fiz. 41 no.3:898-906 S '61. (MIRA 14:10)

1. Moskovskiy inzhenerno-fizicheskiy institut.
(Nuclei, Atomic)

S/056/62/042/001/046/C48
B154/B112

AUTHORS: Zaretskiy, D. F., Urin, M. G.

TITLE: Low levels with negative parity in nonspherical nuclei

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42,
no. 1, 1962, 304-305

TEXT: In deformed even-even nuclei, low levels with 0.3-1.3 Mev were recently detected (Ref. 1). These 1^- levels correspond to internal excitations with $K = 0$ and negative parity. They cannot be explained by the hydrodynamic model. Therefore, it was proposed that such levels should be interpreted in terms of the superfluid model. Using the method of approximate second quantization in the same way as in Ref. 1 (Zaretskiy, D. F., Urin, M. G., ZhETF, 41, 398, 1961), the excitation energy ($\hbar = 1$) is found to be

$$1 = \kappa \sum_{\lambda\lambda'} n, p |(q_{30})_{\lambda\lambda'}|^2 \frac{E_{\lambda} E_{\lambda'} - \varepsilon_{\lambda} \varepsilon_{\lambda'} + \Delta^2}{2E_{\lambda} E_{\lambda'}} \frac{E_{\lambda} + E_{\lambda'}}{(E_{\lambda} + E_{\lambda'})^2 - \omega^2} \quad (1), \quad \checkmark$$

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where $q_{30} = r^3 \cdot Y_{30}(\theta)$ is the single operator for the octupole moment;
 $E_\lambda = \sqrt{\epsilon_\lambda^2 + \Delta^2}$. The energy ϵ_λ is subtracted from the Fermi surface;
 $\Delta = \Delta_n(\Delta_p)$ is a constant characterizing the energy of proton (neutron)
 pair correlation; $\epsilon_o^n = \epsilon_o^n(\epsilon_o^p)$ is the energy of the Fermi boundary for
 neutrons (protons); $\kappa \sim \epsilon_o / AR^6$ is constant depending on the octupole-
 octupole interaction. The value of κ is proposed to be the same for nn,
 pp, and np interactions. (1) permits two solutions which, at $\kappa \rightarrow 0$,
 correspond to the dissociation of a neutron or a proton pair. For a
 given group of nuclei, κ can be regarded as constant. If κ is therefore
 determined for one group of nuclei from the position of the 1^- level, it
 will be possible to estimate ω from Eq. (1) for the other nuclei of this
 group. The probability of electric dipole transition from the 1^- level
 to the ground level is expressed by

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$$B(E1; 1^- \rightarrow 0^+) = \frac{1}{6\omega} \left\{ \sum_{\lambda\lambda'} e_{n,p} (q_{10})_{\lambda\lambda'} (q_{30})_{\lambda\lambda'} \frac{E_\lambda E_{\lambda'} - e_\lambda e_{\lambda'} + \Delta^2}{2E_\lambda E_{\lambda'}} \frac{E_\lambda + E_{\lambda'}}{(E_\lambda + E_{\lambda'})^2 - \omega^2} \right\}^2 \times \left\{ \sum_{\lambda\lambda'} e_{n,p} |(q_{30})_{\lambda\lambda'}|^2 \frac{E_\lambda E_{\lambda'} - e_\lambda e_{\lambda'} + \Delta^2}{2E_\lambda E_{\lambda'}} \frac{E_\lambda + E_{\lambda'}}{[(E_\lambda + E_{\lambda'})^2 - \omega^2]^2} \right\}^{-1} \quad (2),$$

where $e_n = -Ze/\Lambda$, $e_p = Ne/\Lambda$, e is the proton charge, and $Z(N)$ is the number of protons (neutrons). In quasiclassical approximation, the authors estimate $B(E1)$ for low 1^- levels ($\omega \ll 2\Delta_{n,p}$) according to (Ref. 4):

$$\sum_{\lambda\lambda'} |(q_{30})_{\lambda\lambda'}|^2 \frac{E_\lambda E_{\lambda'} - e_\lambda e_{\lambda'} + \Delta^2}{2E_\lambda E_{\lambda'} (E_\lambda + E_{\lambda'})^2} \approx \frac{1}{4\Delta^2} \sum_{\lambda\lambda'} |(q_{30})_{\lambda\lambda'}|^2 \varphi \left(\frac{e_\lambda - e_{\lambda'}}{2\Delta} \right) \delta(e_\lambda) \sim \rho_0 R^0 \Delta^{-2}, \quad (3),$$

where $\varphi(x) = x^{-2} - \ln(x + \sqrt{1+x^2}) \cdot [x^3 \sqrt{1+x^2}]^{-1}$, and φ_0 is the level energy ✓

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density near the Fermi surface. For the approximation in (3), $\varepsilon_\lambda - \varepsilon_{\lambda'} \leq 2\Delta$ is necessary. From the Nilson scheme it follows that in the observed nuclear quadrupole deformations β_0 there are levels λ, λ' for which this condition is satisfied. Analogous evaluation of the numerator in Eq. (2) leads to

$$B(E1, 1^- \rightarrow 0^+) \sim \left(\frac{N-Z}{A}\right)^2 (eR)^2 \beta_0^2 \Delta \frac{2\Delta}{\omega} \quad (4).$$

In the model considered, the probability for the excitation of the 3^- level is

$$B(E3, 0^+ \rightarrow 3^-) = \frac{1}{2\omega} \left\{ \sum_{\lambda\lambda'} | (q_{30})_{\lambda\lambda'} |^2 \frac{E_\lambda E_{\lambda'} - \varepsilon_\lambda \varepsilon_{\lambda'} + \Delta^2}{2E_\lambda E_{\lambda'}} \frac{E_\lambda + E_{\lambda'}}{(E_\lambda + E_{\lambda'})^2 - \omega^2} \right\}^2 \times \quad (5).$$

$$\times \left\{ \sum_{\lambda\lambda'} | (q_{30})_{\lambda\lambda'} |^2 \frac{E_\lambda E_{\lambda'} - \varepsilon_\lambda \varepsilon_{\lambda'} + \Delta^2}{2E_\lambda E_{\lambda'}} \frac{E_\lambda + E_{\lambda'}}{[(E_\lambda + E_{\lambda'})^2 - \omega^2]^2} \right\}^{-1}.$$

This relation is obtained without introduction of the effective nucleonic charge for the $E3$ transition. Estimating $B(E3, 0^+ \rightarrow 3^-)$ in analogy to (3)
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one obtains $B(E3, 0^+ \rightarrow 3^-) \sim B_s(E3) g_0 \Delta \frac{2\Delta}{\omega}$, where $B_s(EL) \sim e^2 R^{2L}$ is the reduced single-particle transition probability. A comparison of (6) with the estimate of $B_{hydr}(E3)$ in the hydrodynamic model leads to $B_{hydr}(E3) \sim B_s(E3) A^{2/3}$, (Ref. 2: A. Bohr, B. Mottelson. Kgl. Dan. Vid. Mat.-Fys. Medd. 27, 16, 1953) and

$$B_{hydr}(E3) > B(E3) > B_s(E3) \quad (7).$$

There are 6 references: 3 Soviet and 3 non-Soviet. The two references to English-language publications read as follows: Ref. 1. D. Strominger, J. Hollander, G. Seaborg. Rev. Mod. Phys., 30, 585, 1958. I. Perlman. Proc. Intern. conf. on nucl. struct. Kingston, Canada, Toronto Press, 1960, p. 547. Ref. 6. A. Bohr, B. Mottelson. Nucl. Phys. 4, 529, 1957.

ASSOCIATION: Moskovskiy inzhenerno-fizicheskiy institut (Moscow Institute of Physical Engineering) ✓

SUBMITTED: November 30, 1961

Card 5/5

40429

S/056/62/043/003/043/063
B108/B102

24.4400

AUTHORS: Zaretskiy, D. F., Urin, M. G.

TITLE: Microscopic description of collective levels of nonspherical nuclei

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 3(9), 1962, 1021 - 1030

TEXT: When pair correlations of nucleons are considered by the method of Bogolyubov's canonical transformation this leads to unphysical states. Here the structure of such collective states in deformed nuclei is studied by second quantization approximation (cf. ZhETF, 41, 898, 1961). In this case the Hamiltonian for the collective excitations is represented in a diagonalized form wherefrom the collective unphysical state can be eliminated. The unphysical states of the form $A_{11}^+ |C_0\rangle$ are orthogonal to all physical (real) states. The error which results from simplifying the Hamiltonian $H = H_0 + H_Q + H_{int}$ to collective oscillations is of the order of $(\rho_0 \Delta)^{-1} \ll 1$ where Δ is a constant determining the pairing energy

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and q_0 is the energy density of the single-nucleon levels near the Fermi level. The matrix element of the electrical multipole moment for a transition between ground state and excited state with multipolarity λ and projection K of the moment has the form.

$$\langle \lambda K | Q'_{\lambda K} | 0 \rangle = \left[e \sum_{1,2} |(q_{\lambda K})_{12}|^2 J_{12}(\omega_{\lambda K}) \right] \left\{ \omega_{\lambda K} \sum_{1,2} |(q_{\lambda K})_{12}|^2 J_{12}(\omega_{\lambda K}) \right\}^{-1}, \quad (24)$$

with $J_{12}(\omega^2) = \partial I_{12} / \partial \omega^2$; $I_{12}(\omega_{\lambda K}) = (E_1 E_2 - \epsilon_1 \epsilon_2 + \Delta^2) E_{12} / 2 E_1 E_2 (E_{12}^2 - \omega_{\lambda K}^2)$;
 $E_v = \sqrt{\epsilon_v^2 + \Delta^2}$, $E_{12} = E_1 + E_2$, ϵ_v is the single-nucleon state energy. In the case of β -excitations, Eq. (24) determines the reduced $E\lambda$ -transition probability $B(E\lambda) \sim B_{sp}(E\lambda) q_0 \Delta^2 / \omega_{\lambda K}$ with an accuracy of $\sim \beta_0^2$ where β_0 is the equilibrium deformation of the nucleus and B_{sp} is the reduced single-particle transition probability.

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Microscopic description of...

S/056/62/043/003/043/063
B108/B102

ASSOCIATION: Moskovskiy inzhenerno-fizicheskiy institut (Moscow
Engineering Physics Institute)

SUBMITTED: April 5, 1962

Card 3/3

DEVYATKO, Yu.N.; LOMONOSOV, V.V.; URIN, M.G.

Excitation of vibration levels in β -decay of nonspherical nuclei.
Izv. AN SSSR. Ser. fiz. 27 no.11:1427-1429 N '63. (MIRA 16:11)

ZARETSKIY, D.F.; URIN, M.G.

Oscillations of nonspherical nuclei. Izv. AN SSSR. Ser. fiz. 28
no.1:118-126 Ja '64. (MIRA 17:1)

ACCESSION NR: AP4042570

S/0056/64/046/006/2070/2077

AUTHORS: Devyatko, Yu. N.; Lomonosov, V. V.; Urin, M. G.

TITLE: Vibrational-rotational interaction in deformed nuclei

SOURCE: Zh. eksper. i teor. fiz., v. 46, no. 6, 1964, 2070-2077

TOPIC TAGS: pair theory, quadrupole moment, vibration spectrum, rotation spectrum, oscillator strength, Hamilton equation

ABSTRACT: The parameters of vibration-rotation interaction in deformed nuclei are calculated by means of a microscopic description, using a model in which pairing and quadrupole-quadrupole interactions between nucleons are taken into account. The Hamiltonian of the vibration-rotation interaction is obtained in the same way as in the theory of molecular spectra, and the parameters of this Hamiltonian are calculated for the "cranking" model with account of the Cooper pair correlations. First order effects with respect to the vibration-

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ACCESSION NR: AP4042570

rotation interaction are considered. The calculations performed in the quasiclassical approximation for particles subject to an oscillator potential are compared with experimental data. In view of the crudeness of the model, only qualitative agreement is obtained between the calculated and experimental values. "The authors wish to thank D. F. Zaretskiy for very valuable discussions." Orig. art. has: 2 tables and 27 formulas.

ASSOCIATION: Moskovskiy inzhenerno-fizicheskiy institut (Moscow Engineering-Physics Institute)

SUBMITTED: 06Aug63

ENCL: 00

SUB CODE: NP

NR REF SOV: 006

OTHER: 011

Card 2/2

L 41010-65 ENT(m) Feb DIAAP

ACCESSION NR: AP5007702

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11-1812.

SOURCE: Yadernaya fizika, v. 1, no. 1, 1965, 32-37

TOPIC TAGS: Beta Gamma band interaction, deformed nucleus, level interaction, Alaga rule correction, quadrupole nuclear interaction, pairing nuclear interaction

ABSTRACT: Collective levels of strongly deformed nuclei may be treated within the framework of the simple rotational model of spheroidal nucleus. Experimental

Card 1/2

L 41010-65

ACCESSION NR: AP5007702

-2

teraction and quadruple interaction of the authors estimate the magnitude of
the quadruple interaction to be

ASSOCIATION: Moskovskiy inzhenerno-fizicheskiy institut (Moscow Engineering-Phy-

SUBMITTED: 10Jun64

TYPE: X

SWA CODE: NF

NO REF SOV: 007

OTHER: 004

Cord 2/2

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001858020020-5

Card 1 -

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001858020020-5"

Card 4/4

URIN, M-N

25

PHASE I BOOK EXPLOITATION SOV/5458

Girshovich, Naum Grigor'yevich, Doctor of Technical Sciences, Professor, ed.

Spravochnik po chugunnomu lit'yu (Handbook on Iron Castings) 2d ed., rev. and enl. Moscow, Mashgiz, 1961. 800 p. Errata slip inserted. 16,000 copies printed.

Reviewer: P. P. Berg, Doctor of Technical Sciences, Professor; Ed.: I. A. Baranov, Engineer; Ed. of Publishing House: T. L. Leykina; Tech. Eds.: O. V. Speranskaya and P. S. Frumkin; Managing Ed. for Literature on Machine-Building Technology (Leningrad Department, Mashgiz): Ye. P. Naumov, Engineer.

PURPOSE: This handbook is intended for technical personnel at cast-iron foundries. It may also be of use to skilled workmen in foundries and students specializing in founding.

COVERAGE: The handbook contains information on basic problems in the modern manufacture of iron castings. The following are discussed: the composition and properties of the metal; the making of molds; special casting methods; the charge preparation; melting

Card 1/1

Handbook on Iron Castings

SOV/5458

and modifying the cast iron; pouring, shaking out, and cleaning of castings; heat-treatment methods; and the inspection and rejection of castings. Information on foundry equipment and on the mechanization of castings production is also presented. The authors thank Professor P. P. Berg, Doctor of Technical Sciences, and staff members of the Mosstankolit Plant, headed by the chief metallurgist G. I. Kletskin, Candidate of Technical Sciences, for their assistance. References follow each chapter. There are 287 references, mostly Soviet.

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Handbook on Iron Castings

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478

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Card-7/11

LETUCHIY, N.A.; URIN, M.V.

Overhauling on a large scale. Put' i put.khoz. 6 no.11:7-8 '62.
(MIRA 16:1)

1. Nachal'nik distantsii puti, st. Semenov, Gor'kovskoy dorogi
(for Letuchiy). 2. Zamestitel' nachal'nika sluzhby puti, st.
Semenov, Gor'kovskoy dorogi (for Urin).

(Railroads—Maintenance and repair)

(Railroads—Electrification)

URIN, M.V.

Track maintenance work during the technological "intervals."
Put' i put.khoz. 8 no.4:10-11 '64. (MIRA 17:4)

1. Zamestitel' nachal'nika sluzhby puti Gor'kovskoy dorogi.

URIN, V.

37493. Dva konveyyera. [Vosstanov. leniye stalingr. traktornogo zavoda. ocherk].
God XXXII. Al'manakh. Z. M., 1949, s. 406-28.

SO: Letopis' Zhurnal'nykh Statey, Vol. 7, 1949

URIN, Viktor.

Moscow to Vladivostok; starting out. Za rul. 14 no.5:23
Ag '56. (MIRA 10:1)

(Automobile drivers) (Roads)

URIN, Viktor

Moscow-Vladivostok; from the Volga to the Irtysh. Za rul. 14 no.6:
10 S '56. (MLRA 10:4)

(Roads)

URIN, Viktor Arkad'yevich,; ORLOVA, G.A., red.; KANDYKIN, A.Ye., tekhn. red.

[One hundred and seventy nine days in an automobile; Moscow--Vladivostok; a travel diary] 179 dni v avtomobile; Moskva-Vladivostok; putevoi dnevnik. Moskva, Sovetskii pisatel', 1958. 293 p.

(MIRA 11:11)

(Russia--Description and travel)
(Automobiles--Touring)

URIN, Viktor Arkad'yevich; GELLERSHTEYN, V.I., red.; FEDOROVA, V.V., tekhn.
red.

[Along the Kolyma route to the cold pole] Po kolymskoi trasse -
k Poliusu kholoda. Magadan, Magadanskoe knizhnoe izd-vo, 1959.
225 p. (MIRA 13:9)
(Kolyma Valley--Description and travel)

URIN, Viktor Arkad'yevich; KAPLAUKH, A., red.

[1001 days in an automobile] 1001 den' v avtomobile.
Volgograd, Volgogradskoe knizhnoe izd-vo, 1963. 61 p.
(MIRA 18:3)

URIN, Viktor Arkad'yevich, 1924-

[Iron stork; along the roads of Krasnoyarsk Territory]
Zheleznyi aist; po dorogam Krasnoiarskogo kraia. Krasno-
iarsk, Krasnoiarskoe knizhnoe izd-vo, 1963. 275 p.
(MIRA 17:12)

UMIN, Viktor Arkad'yevich

[Iron leaf; along the roads of Krasnoyarsk Territory]
Zheleznyi list; po dorogam Krasnoiarskogo kraia. Krasno-
iarsk, Krasnoiarskoe knizhnoe izd-vo, 1963. 275 p.
(MIRA 18:4)

URIN, V.D., inzh.

Choice of optimum operating condition and number of working
units in an hydroelectric power station. Elek. sta. 33 no.7;
48-53 J1 '62. (MIRA 15:8)
(Hydroelectric power stations)

URIN, V.D. , inzh. (Moskva)

Negative feedback in magnetic amplifiers. Elektrichestvo
no.10:46-51 0 '63. (MIRA 16:11)

URIN, V.D., inzh.

Simplified method of plotting characteristics of the optimum operating zone of hydroelectric power stations. Gidr.stroi. 34 no.11:32-34 N '63.
(MIRA 17:3)

DOLGOPOLOV, V.M., inzh.; ZISMAN, L.M., inzh.; NEYSHTADT, I.S., inzh.;
RANSEVICH, B.N., inzh.; URIN, V.D., inzh.

Operation of the automatic operator of a multiple-unit hydro-
electric power station with long-term frequency deviations
from the nominal value. Elek. sta. 35 no.2:35-37 F '64.
(MIRA 17:6)

BUROV, N.M., inzh.; URIN, V.D., inzh.

Overall automation of the Pavlovsk Hydroelectric Power
Station. Elek. sta. 35 no.3:37-40 Mr '64.

(MIRA 17:6)

URIN, V.D., inzh.; SOKOLOV, V.I., tekhn.nauk

Concerning V.I.Doroginin's article "Use of the generators of
a hydroelectric power station as synchronous compensators."
Elek. sta. 35 no. 4:84-88 Ap '64. (MIRA 17:7)

URIN, V.D., inzh.

Establishment of the operating mode of a hydroelectric power station
taking into account active power and decentralization of the load.
Elek. sta. 35 no.8:34-36 Ag '64. (MIRA 17:12)

URIN, Vladimir Davydovich; KIBLITSKIY, V.A., red.

[Adjustment of magnetic amplifiers] Naladzka magnitnykh
usilitelei. Moskva, Energiia, 1964. 40 p. (Biblioteka
elektromontera, no.139) (NIRA 18:1)

L 41039-65 ENT(6)/EPF(n)-2/ERP(1) Po-4/Pq-4/Pg-4/Pae-2/Pu-4/Pk-4/PI-4 TJP(6)

AUTHOR: Urin, V. D. (Moscow)

TITLE: Controlling a group of similar plants having a finite number of states

SOURCE: Avtomatika i telemekhanika, v. 26, no. 2, 1965, 370-374

TOPIC TAGS: plant group control, automatic control, automatic control design,
remote control, control systems

ABSTRACT: In (remote) controlling power generators, conveyers, metal-working machines and the like, the number of possible states of the group may be finite. In this case, the number of control operations is reduced by excluding the states of the group which are not reached by the control operations.

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L 41039-65

ACCESSION NR: AP5006268

generators. Orig. art. has: 4 figures, 2 formulas, and 1 table.

ASSOCIATION: none

SUBMITTED: 06Nov63

ENCL: 00

SUB CODE: IE, DP

NO REF SOV: 003

OTHER: 000

Card 2/2

KORMER, S.B.; SINITSYN, M.V.; KIRILLOV, G.A.; URIN, V.D.

Experimental determination of the temperatures of shock-compressed
NaCl and KCl and their melting curves at pressures up to 700 Kbars.
Zhur. eksper. i teor. fiz. 48 no.4:1033-1049 Ap '65.

(MIRA 18:5)

86216

S/103/60/021/012/003/007
B012/B064

9.2560 (1024, 1159, 1154)

AUTHORS: Suponitskiy, A. P., Urin, V. D. (Moscow)

TITLE: Relay Circuits With Transistors

PERIODICAL: Avtomatika i telemekhanika, 1960, Vol. 21, No. 12,
pp. 1595-1600

TEXT: The present paper describes relay circuits with transistors and a diode inverter at the input. Relay circuits comparing the voltage U_1 produced by the measuring circuit with a given voltage U_2 are treated.

Figs. 1 and 2 show two variants of it. In circuits without non-linear elements both are equivalent. In the second variant it is easy to introduce valves. This circuit protects the transistor against overvoltages on the emitter base junction and against overloading. It is shown that in the second circuit (Fig. 2) the mentioned protective properties allow a much freer choice of the parameters. This circuit was also used for experimental tests. The two kinds of bistable static relay circuits with

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Relay Circuits With Transistors

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two crystal amplifier cascades are investigated. The circuit shown in Fig. 3 was already previously explained (Ref. 1). If the source of the input signal has a high internal resistance the reduced resistance R_{control} of the control circuit, and thus R_{input} is limited. It is shown how the feedback factor of a circuit free of this limitation can be determined. Furthermore, the results obtained by testing relay circuits with the initially mentioned protective properties are given. The circuits shown in Figs. 5 and 6 were used in this connection. The first is a further development of the circuit shown in Fig. 3, and the second is based on that shown in Fig. 4. Laboratory tests confirmed the reproducibility of the results obtained. The thermal stabilization of Fig. 5 warranted, when the ambient temperature was changed by 20°C , the maintenance of voltage in operation and release. Thermal stabilization was obtained by a differential circuit diode (Ref. 2). A disadvantage of this kind of thermal stabilization is the necessity of having two feeding sources or a potentiometer. The thermal stabilization of the circuit shown in Fig. 6 was performed by connecting a diode. This method can be applied to both the circuit of Fig. 1 and that of Fig. 2. The disadvantage of this thermal

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Relay Circuits With Transistors

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stabilization is that it can only be used in the presence of a highohmic potentiometer. It is pointed out that the thermal stabilization of the relay with transistors by means of diodes is absolutely effective in a small range of temperature change.

Legend to Fig. 2: 1) R_{overload} , 2) R_{base}

Legend to Fig. 3: 1) R_{control} , 2) R_{feedback}

Legend to Fig. 5: 1) R_{overload} , OM - ohm, KOM - kilohm

Legend to Fig. 6: OM - ohm, KOM - kilohm, MOM - milliohm.

There are 7 figures and 2 Soviet references.

SUBMITTED: May 30, 1960

Card 3/6

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B012/B064

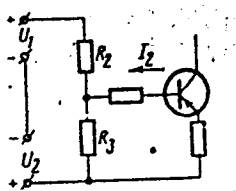


Рис. 1 Fig. 1

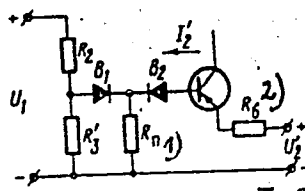


Рис. 2 Fig. 2

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группа эти соотношения.

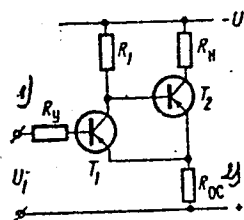


Рис. 3

Fig. 3

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B012/B064

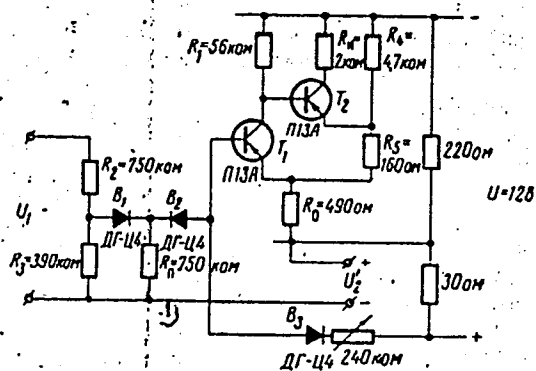


Рис. 5 Fig. 5

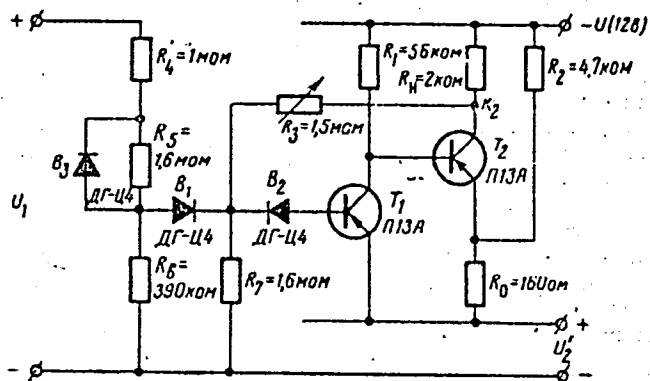


Рис. 6 Fig. 6

Card 6/6

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33767

S/103/62/023/001/005/014
D201/D304

14.6800 (1121, 1329, 2403)

AUTHOR: Urin, V.D. (Moscow)

TITLE: A simplified method of synthesis of step-by-step switching circuits

PERIODICAL: Avtomatika i telemekhanika, v. 23, no. 1, 1962. 52-56

TEXT: The author suggests a method of step-by-step switching circuit synthesis which is simple compared with that of G. Ioanin (Ref. 1: Avtomatika i telemekhanika, v. 19, no. 9, 1958). It is based on the knowledge of the natural contact function of the switch X . The natural contact function is the expression $F_X = F(0)X^0 + \dots + F(k)X^k$

where $F(k)$ - the value of function F_X for the k position of the switch, X^k - the value of the contact function "rush - spring of position k , $X^k = 1$ for the switch in position k and $X^k = 0$ for all other switch positions; $F(k) = 1$ if in the k position the relay winding is under current, $F(k) = 0$ - if the winding circuit is open. Provided the form of F_X is known for all positions of the switch.

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D201/D304

A simplified method of synthesis ...

its general expression may be obtained and the circuit designed. The method of determining F_X for an arbitrary switch position is based on the fact that there exist only a few possibilities of obtaining the movement of the step-by-step switch having a reverse drive and all these possibilities are related to the open circuiting of the windings by the contacts of the circuit. From a given program of circuit operation it is easy to establish whether a change of state occurs and at which contact it occurs at the change-over from one step to the next one. If at any given position there is no change in the circuit contact states, the change over to the next position is possible only owing to the action of the natural (self open circuiting) contact. Since the form of function $F(k)$ may be obtained only by comparing the states of the circuit elements in different positions, a table of such states is drawn up, from which the circuit may be eventually designed. The tables contain the following data: a) The state of all switches operating in the switching circuits; b) The state of all switching keys, contacts and other control elements (except the natural contacts and springs of switches); c) The state of auxiliary relays etc. in the circuit. d) The

Card 2/3

33767

S/103/62/023/001/005/014
D201/D304

A simplified method of synthesis ...

value of function $F(k)$ in a given state; e) Special operating features of the circuit. Thus the tables, although they may contain a switching program, are basically the tables of movement of the switch. There are 1 figure, 2 tables and 7 references: 6 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: D.A. Huffman, J. Franklin Inst. no. 3, 4, 1954.

SUBMITTED: March 13, 1961

Card 3/3

URIN, V.D., inzh. (Moskva)

Place of the selection of an optimum number of operating units of a
hydroelectric power station. Elektrichestvo no.6:89-90 Je '65.

(MIRA 18:7)

URIN, Valentin Ivanovich; KULIKOV, V.N., red.

[Beyond the Vyatka River] Za Viatkoi-rekoi... Moskva, Izd-vo
"Sovetskaja Rossiia", 1960. 1 v. (MIRA 13:12)
(Kirov Province--Collective farms)

URIN, V. M.

URIN, V. M. "The Treatment of Thyrotoxicosis Patients with 6-methyl Thiouracyl." L'vov State Medical Inst. L'vov, 1956.
(Dissertation for the Degree of Candidate in Medical Science)

So: Knizhnaya Letopis', No. 19, 1956.

BARVINSKIY, S.R., kand. med. nauk; BRIN, V.M., kand. med. nauk (L'vov)

Examination of mucoproteins in the blood of thyrotoxicosis patients.
Probl. endok. i gorm. 9 no.6:61-64 N-D '63.

(MIRA 17:11)

1. Iz kafedry gosptal'noy terapii (zav. - dotsent I.I. Markov) i
kafedry biokhimii (zav. - prof. V.A. Sobchuk) L'vovskogo meditsin-
skogo instituta (rektor - prof. L.N. Kuzmenko).

MARKOV, I.I., doktor med.nauk; URIN, V.M., kand.med.nauk

Differential diagnosis of initial and atypical forms of diffuse
toxic goiter. Sov.med. 28 no.4:3-8 Apr '65.

(MIRA 18:6)

1. Kafedra gospiatal'noy terapii (zav. - doktor med.nauk I.I.
Markov) L'vovskogo meditsinskogo instituta.

URINA, Ya.A.

Technical handbooks for workers. Mashinostroitel' no.7:46-47 J1
'63. (MIRA 16:9)

1. Starshiy redaktor Gosudarstvennoy publichnoy nauchno-tekhnicheskoy
biblioteki SSSR. (Technology--Information services)

L 42046-65 EWT(d) IJP(c)

UR/0296/65/000/007/0135/0135

ABSTRACT

AUTHORS: Polisskiy, Yu. D.; Tsingauz, V. Kh.; Zlobinskiy, V. I.; et al.

42, No. 10989

SOURCE: Sovetskaya Matematika 1965, 1965, 1965

TOPIC TAGS: numerical analysis

ABSTRACT: This article describes a method for determining the greatest difference of several numbers. It is a sequential comparison of the digits in the

Ukrainian Academy of Sciences, Institute of Mathematics, Kiev, Ukraine

Sovmarkhoza (Dnepropetrovsk Branch of the
National Economy Council)

Card 1/2

UNKOVSKIY, B.V.; MOKHIR, I.A.; URINOVICH, Ye.M.

Stereochemistry of acetylenic synthesis. Part 1: Space configuration of geometrical isomers of 1,3-dimethyl-4-ethynyl-4-piperidol and their derivatives. Zhur.ob.khim. 33 no.6:1808-1816 Je '63.
(MIRA 16:7)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V.Lomonosova.

(Piperidinol) (Stereochemistry)

UNKOVSKIY, B.V.; BELYANIN, V.B.; MOKHIR, I.A.; URINOVICH, Ye.M.

Stereochemistry of acetylenic synthesis. Part 3: Space configuration of geometrical isomers of 1,2,5-trimethyl-4-ethynyl-4-piperidol and their derivatives. Zhur. ob. khim. 33 no.8:2540-2548 Ag '63. (MIRA 16:11)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V. Lomonosova.

ACC NR: AP6025388

SOURCE CODE: UR/0366/66/002/007/1148/1155

Unkovskiy, B.V.;
AUTHOR: Bolyanin, V. B.; Urinovich, Ye. M.; Malina, Yu. F.

ORG: Moscow Institute of Fine Chemical Technology imeni M. V. Lomonosov (Moskovskiy institut tonkoy khimicheskoy tekhnologii)

TITLE: Stereochemistry of cyanohydrin synthesis. Part 1: Conformational study of stereoisomeric 1,2-dimethyl-, 1,3-dimethyl- and 1,2,5-trimethyl-4-carbomethoxy-4-piperidinols

SOURCE: Zhurnal organicheskoy khimii, v. 2, no. 7, 1148-1155

TOPIC TAGS: stereochemistry, IR spectrum, piperidinol

ABSTRACT: IR absorption spectra were used to study the conformations of stereoisomeric 1,2-dimethyl-, 1,3-dimethyl- and 1,2,5-trimethyl-4-carbomethoxy-4-piperidinols. The study confirmed the spatial configurations ascribed to these compounds on the basis of their configurative relationship to the geometric isomers 1,2-dimethyl-, 1,3-dimethyl- and 1,2,5-trimethyl-4-acetyl-4-piperidinols. The spatial conformations of the compounds in solutions and the characteristics of IR spectra were correlated with the diverse character of interactions of their functional groups depending upon their spatial orientation. The correlation established between the IR spectra and the conformations of the functional groups can be used for determining the spatial structure of other analogous compounds. Orig. art. has; 1 figure.

Card 1/2

UDC: 547.823+541.634+543.422

ACC NR: AP6025388

SUB CODE: 07/ SUBM DATE: 03Apr65/ ORIG REF: 006/ OTH REF: 008

Card 2/2

URINOVSKIY, D. S.

"Synchronous Motor With Permanent Magnets." Sub 27 Dec 51, Sci Res Inst, Ministry of the Electrical Industry USSR

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

110-7-5/30

AUTHOR: Urinovskiy, D.S. (Cand.Tech.Sci.)

TITLE: Synchronous motors with permanent magnets. (Sinkhronnye dvigateli s postoyannymi magnitami).

PERIODICAL: "Vestnik Elektropromyshlennosti" (Journal of the Electrical Industry), Vol.28, No.7, 1957, pp.13-17 (USSR).

ABSTRACT: Synchronous motors with permanent magnets are simple, reliable and of high efficiency and higher power factor than reaction, hysteresis and induction motors. The development of magnetic steels of high coercivity affords considerable possibilities for the development of permanent magnet machines. However, it is still necessary to solve the problems of asynchronous starting and of preventing demagnetisation of the magnets during asynchronous operation. This was achieved in 1950 and a pole-system was designed with increased dispersion between the pole pieces, which permits the use of asynchronous starting of these motors without demagnetising the magnets excessively. Interest in motors of this type has recently developed in the USA. However, the American article by Merrill did not discuss the main questions of theory and design of permanent magnet motors. One of the most important tasks in designing these machines is to predetermine the position of

Card
1/3

Synchronous motors with permanent magnets. (Cont.)
 the working return line on the demagnetisation diagram of the magnets and this question is discussed. When the motor is running slightly below synchronous speed the rotor inevitably passes slowly through a position in which the mmf of the rotor and stator are in opposition. An expression is given for the maximum demagnetising current in this position and the corresponding demagnetisation diagram is discussed. An expression is also derived for the power of a permanent magnet type synchronous motor. The expression derived is explained in terms of the demagnetisation diagram. Requirements that must be met in order to secure maximum output from a motor are discussed. The rotor of a 1 kW permanent magnet type synchronous motor manufactured in the Scientific Research Institute of the Ministry of the Electrotechnical Industry is illustrated in Fig.5.

On the basis of the theoretical considerations on permanent magnet type synchronous motors presented in the article it is concluded that the position of the working return line of the permanent magnet may be determined by a graphical-analytical method. The analysis of the relationship between the output of the motor and its parameters can be used to determine the conditions for the best use of magnets in such

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 2/3

110-7-5/30

Synchronous motors with permanent magnets. (Cont.)

machines. The magnetic system must be specially designed to ensure high dispersion between the pole shoes.

There 5 figures and 4 references, 2 of which are Slavic.

ASSOCIATION: Scientific Research Institute of the Ministry of the Electro-technical Industry. (NII MEP)

AVAILABLE:

Card 3/3

URINOVSKIY, D. S.

"Synchronous Motor with Permanent Magnets,"

Dissertation for the Degree of Candidate of Technical Sciences, defended at
Scientific Research Institute, of Electrotechnical Industry, 27 December 1951,
(Elektrichestvo, 1955, Nr 4, pp 87-88)

URINOVSKIY, D.S., kand.tekhn.nauk

Special features of asynchronous motors with increased frequency.
Vest. elektroprom. 33 no.8:8-12 Ag '62. (MIRA 15:7)
(Electric motors, Induction)

USSR/Medicine - Infectious Diseases Mar/Apr 51

"Syndrome of Syringomyelitis in Brucellosis," P. Ye. Urinskij, Cand Med, Sci, Chair of Nervous Diseases, Kirgiz State Med Inst

"Nevropatol i Pelkhat" Vol XX, No 2, pp 66, 67

Syringomyelitis due to combined brucellosis and syphilis infection has been described before, but has not been known hitherto to occur as complication of brucellosis alone. On basis of observations made on 2 cases, concludes tentatively: (1) Syringomyelitis can be produced by brucellosis alone.

186788

USSR/Medicine - Infectious Diseases Mar/Apr 51
(Contd)

(2) Syndrome of syringomyelitis then takes course which can be expressed by wavy curve. (3) As a result of treatment, syringomyelitis of brucellar origin regresses.

186788

URINSKIY, P. Ye.

URINSKIY, P. Ye.

"Disturbances of the Nervous System in Brucellosis."
Sov. Sdravookhr Kirgizii, No 3, pp 30-33, 1953

Among the disturbances observed by the author in brucellosis were lumbar-lumbosacral radiculitis (60%) and encephalitis (20%). Brucellosis is frequently accompanied by psychich changes. Brucellar myelitis was seen in 5.3% of the cases. Also observed were syndromes of syringomyelitis of brucellar origin regressing under treatment. Brucellar disturbances of the central nervous system were only slightly affected by treatment. Widely used in the treatment is a combination of "biokhinol" urotropin, and auto-hemotherapy. Disturbances of the perispheric nervous system yield best to treatment. Ultraviolet irradiation has good results. In disturbances of the nervous system, vaccine therapy produces sharp reactions and must be administered with great care. (RZhBiol, No 7, 1954

SO: Sum, No 606, 5 Aug. 55

PROKHORENKO, K.K.; URINSON, A.I.

Ineffectualness of forced adding of metal to cast steel. Vop.
proizv.stali no.3:130-134 '56. (MLRA 9:11)
(Founding)

Urinson, A.I.

133-12-6/26

AUTHORS: Bedel'yan, L.P., Zhilyakov, I.G., Kanevskiy, v.M.,
Rysev, A.I., and Urinson, A.I., Engineers.

TITLE: Operation of 185-ton Open Hearth Furnaces on Natural Gas
(Rabota 185-t martenovskikh pechey na prirodnom gaze)

PERIODICAL: Stal', 1957, No.12, pp. 1082 - 1085 (USSR).

ABSTRACT: Operation of a 185-ton open hearth furnace fired with natural gas carburised with fuel oil is described. Originally designed and actually used gas-oil burners are shown in Figs. 1 and 2, respectively, and the gas installation used in Fig. 3. For the atomisation of the fuel oil, the use of gas and steam was tried. Operational indices of best heats and a comparison of the furnace operation when fired with gas-fuel oil, gas-fuel oil (atomised with steam) and fuel oil alone are given in Tables 1 and 2, respectively. It is concluded that on transfer of furnace from oil to natural gas (10 atm.) firing the output will not decrease only if high pressure superheated steam is used for the atomisation of fuel oil. The flame obtained with natural gas, carburised with 25% of oil has similar properties as fuel-oil flame. A proposal is made to carry out experiments on firing an open hearth furnace with natural gas preheated to 250-300 °C, as well as with gas of increased pressure (13 - 15 atm.). There are 2 tables and 3 figures.

Card 1/2

Operation of 185-ton Open Hearth Furnaces on natural Gas 133-12-6/26

ASSOCIATION: Taganrog Metallurgical Works im. Andreyev
(Taganrogskiy metallurgicheskiy zavod imeni
Andreyeva)

AVAILABLE: Library of Congress

Card 2/2

SOV/137-58-9-18581

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 58 (USSR)

AUTHORS: Prokhorenko, K.K., Kopit, G.S., Urinson, A.I., Lomakin, A.V.

TITLE: On the Expediency of Smelting Pipe Metal Without Preliminary Deoxidation (O tselesoobraznosti vyplavki trubnogo metalla bez predvaritel'nogo raskisleniya)

PERIODICAL: V sb. Staleplavil'n. proiz-vo. Moscow, Metallurgizdat, 1958, pp 11-18

ABSTRACT: Experimental smeltings of killed steels carried out at the metallurgical im. Andreyev plant in Taganrog were divided into two series: the first series involved preliminary deoxidation in the furnace with the aid of Fe-Mn only, in conjunction with the addition of 45%-Fe-Si and Al into the ladle; in the second series Fe-Mn was added to the ladle rather than to the furnace. In the first instance, in case of steels D and St. 4, the Si losses were reduced from 20-33% to 5-16%; in the second instance, in the case of steels 40Kh and 50, the Si and Mn losses were reduced from 35-37 and 35-40%, respectively, to 13-15 and 25-26%. The smelting period was reduced by 15 minutes, a time commonly employed for preliminary deoxidation. The number of

Card 1/2

SOV/137-58-9-18581

On the Expediency of Smelting Pipe Metal Without Preliminary Deoxidation

external flaws on the ingots remained unchanged. During inspection for re-jects it was established that the number of pipes rolled from this metal and possessing external and internal flaws was relatively smaller than the number of identically affected pipes made of metal which had been subjected to preliminary deoxidation in the furnace. The amount of nonmetallic inclusions, as well as the quantity of hydrogen contained in steels of the experimental smeltings, was in all instances found to be smaller than in the case of smeltings with preliminary deoxidation. Mechanical properties of the steels of both groups are virtually identical.

L.K.

1. Steel---Processing
2. Pipes--Production
3. Pipes--Inspection

Card 2/2

AUTHOR: Urinson, A.I., Engineer

SOV/133-59-6-11/41

TITLE: Application of Natural Gas of a High Pressure for Firing Open Hearth Furnaces (Primeneniye prirodnogo gaza vysokogo davleniya dlya otopeniya martenovskikh pechey)

PERIODICAL: Stal', 1959, Nr 6, pp 504-508 (USSR)

ABSTRACT: On the basis of 18 months experience in the operation of open hearth furnaces fired with natural gas of 10 atm pressure, carburised with 25-30% of oil, the technical and economic advantages of this method of firing under suitable conditions are presented. The design of 185 ton furnaces (Fig 1) and operating practice are outlined and average operating data on oil and gas firing are compared. Thermal load increased by 20%, average duration of the furnace campaign 473.7 heats (as against 469.4 heats on oil), average duration of heats 9 hr 8 min (against 9 hr 23 min), the cost of a ton of steel was decreased by

Card 1/2

SOV/133-59-6-11/41
Application of Natural Gas of a High Pressure for Firing Open
Hearth Furnaces

26.25 roubles. There are 2 figures and 2 Soviet
references.

ASSOCIATION: Taganrogskiy metallurgicheskiy zavod
(Taganrog Metallurgical Works)

Card 2/2

1ST AND 2ND ORDERS										PROCESSES AND PROPERTIES INDEX										3RD AND 4TH ORDERS									
<p>18</p> <p>A most rational method of feeding sulfuric acid towers with nitrogen oxides. <u>A. Litmanov</u> <i>Khimstroi</i> 7, 404-7 (1976). --A illustration, with math. treatment. C. H.</p>																													
<p>ASB-3LA METALLURGICAL LITERATURE CLASSIFICATION</p>																													
SARODS										SARODS										SARODS									
SARODS										SARODS										SARODS									

The distribution of lactic acid in the organs of the guinea pig after muscular exercise. N. S. Savchenko and A. V. Crimson. *J. Physiol.* (U. S. S. R.) 24, 907-14 (in English, 1949) (1950). At rest, the lactic acid content (I) of guinea-pig heart muscle is lower than that of the skeletal muscle. I increases in the heart muscle after phys. exercise. The relatively low I of the liver is an indication of the role of this organ in removing I from the blood. There is an insignificant increase in I of the brain after exercise.

S. A. Karjala

1ST AND 2ND ORDERS										PROCESSES AND PROPERTIES INDEX										3RD AND 4TH ORDERS									
<p>18</p> <p>7</p> <p>The determination of very small amounts of lactic acid. A. P. Utman. <i>J. Physiol.</i> (U. S. S. R.) 25, 748-52 (in French, 752) (1958); cf. C. A. 53, 2509. An amt. of material contg. 0.005-0.02 mg. of lactic acid (l) in 4-5 cc. of H₂O is distd. with MnSO₄ and H₂SO₄. The AcH is caught in the receiver with 1% NaHSO₃, care being taken to exclude atm. O during and after the distn. The excess NaHSO₃ is then titrated with I with a microburet. Amts. of I of 0.01 mg. can be detd. with an accuracy of 4%, of 0.02 mg. to 1.5-2.5% and of 0.0045-0.0065 mg. to 4-9%.</p> <p>S. A. Kartala</p>																													
<p>ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																													

URINSON, A. P.

PA 20T31

USSR/Medicine - Erythrocytes

May/Jun 1947

Medicine - Phosphorus and Phosphorus Compounds

"The Restoration of Phosphorus-bearing Substances in Human Erythrocytes," G. Ye. Vladimirov, I. A. Pelishenko, A. P. Urinson, Chair of Biological Chemistry of the Kirov Military Medical Academy, Leningrad, 9 pp

"Fiziologicheskiy Zhurnal" Vol XXXIII, No 3

Gives seven analytical tables. Discusses method, the effect of temperature upon the rate of exchange of phosphoric acid between plasma and erythrocytes, the rate of restoration of certain phosphorus-bearing substances at 37°C, diphosphoglycerin acid and the rate of its restoration in erythrocytes, and the rate of restoration of phospholipides of erythrocytes.

VLADIMIROV, G. Ye., PELISHENKO, I.A., URINSON, A. P.

Leningrad, -cl948-.

Mbr., Chair of Biological Chemistry, Military Med.
Acad., Leningrad, -cl948-.

"Course of lipoid and phosphorous renewal in the stroma
of human erythrocytes," Biokhimiya, 13: 5, 1948.

BNL Guide, 2: 4, 1949.